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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/878,978 06/19/97 LINDER

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EXAMINER

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ART UNIT

PAPER NUMBER

2724

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16

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/878,978

Applicant(s)

Stephen F. Linder

Examiner

King Y. Poon

Group Art Unit

2724



☒ Responsive to communication(s) filed on Nov 12, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-7 is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-7 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 12

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eschbach in view of Robinson.

Regarding claim 1: Eschbach teaches a system (see fig. 1 and column 5 line 47-49) for processing object oriented image data (see black pixel object, gray pixel object, and white pixel object of fig. 5 and color image object of column abstract) comprising: a parser circuit to parse a neutral image data (black and white of column 1 line 19) into black image data, grey image data, and white image data; and a neutral color processing circuit to process the black image data, grey image data, and the white image data. (See column 10 line 1-20)

Eschbach does not specifically disclose a parser circuit to parse the object oriented image data into non-neutral image data and neutral image data, and the neutral color processing circuit processes only the black image data, grey image data, and the white image data.

Eschbach teaches that an image can be divided into color image data (non neutral image data) and black and white image data (neutral image data) (see column 1 line 19), and that the

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color image data and the black and white image pixel are to be processed independently. (See color separation process for color image of abstract) Robinson teaches the use of different processors to perform different tasks and each processor processes only a specific task. (See column 8 line 1-25) Eschbach and Robinson are combinable because they are from the same area of using a processing circuit (processor) to perform a task.

Therefore, at the time of invention, it would have been obvious to one of ordinary skill in the art to provide a parser circuit in Eschbach image processing system to parse the object oriented image data into non-neutral image data and neutral image data for the purpose of processing the non-neutral image data and neutral image data independently as suggested by Eschbach.

Moreover, it would have been obvious to one of ordinary skill in the art to modify Eschbach's image processing system by having the neutral color processing circuit processes only the black image data, the grey image data, and the white image data as taught by Robinson for the purpose of increasing processing efficiency. Therefore, it would have been obvious to combine Robinson and Eschbach to obtain the invention as specify in claim 1.

Regarding claim 2: Eschbach has disclosed all of the claim limitations as recited in claim 1 except a black processing circuit to process only the black image data; a grey processing circuit to process only the grey image data; and a white processing circuit to process only the white image data.

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Robinson teaches the use of different processors to perform different tasks and each processor processes only a specific task. (See column 8 line 1-25) Eschbach and Robinson are combinable because they are from the same area of using a processing circuit (processor) to perform a task.

At the time of invention, it would have been obvious to one of ordinary skill in the art to modify Eschbach's image processing system by having a black processing circuit to process only the black image data; a grey processing circuit to process only the grey image data; and a white processing circuit to process only the white image data as taught by Robinson for the purpose of increasing processing efficiency. Therefore, it would have been obvious to combine Robinson and Eschbach to obtain the invention as specify in claim 2.

3. Claims 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eschbach in view of Robinson as applied to claim 1 above, and further in view of Meir et al.

Regarding claim 3: Eschbach has disclosed all of the claim limitations as recited in claim 1 except that the neutral color processing circuit processes only the black image data, the grey image data, and the white image data according to a selected feature set.

Meir teaches to process an image according to a selected feature set. (See column 6 line 55-60) Meir, Robinson, and Eschbach are combinable because they are from the same area of processing data using a processor.

At the time of invention, it would have been obvious to one of ordinary skill in the art to modify Eschbach's neutral processing circuit to process only the black image data, the grey

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image data, and the white image data according to a selected feature set as taught by Meir for the purpose of selecting an image processing operation for an image. Therefore, it would have been obvious to combine Meir, Robinson and Eschbach to obtain the invention as specify in claim 3.

4. Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eschbach in view of Tai.

Regarding claim 4: Eschbach teaches a method (see fig. 1 and column 5 line 47-49) of processing object orient image data (see black pixel object, gray pixel object, and white pixel object of fig. 5 and color image object of column abstract) comprising the steps of: parsing a neutral image data (black and white of column 1 line 19) into black image data, grey image data, and white image data; and a neutral color processing circuit to process the black image data, grey image data, and the white image data. (See column 10 line 1-20)

Eschbach does not specifically teach to parse the object oriented image data into non-neutral image data and neutral image data, and to process the processed black image data, the processed grey image data, the processed white image data, and the non-neutral image data together.

Eschbach teaches that an image can be divided into color image data (non neutral image data) and black and white image data (neutral image data) (see column 1 line 19), and that the color image data and black and white image pixel is to be processed independently. (See color separation process for color image of abstract) Tai teaches to process a processed black image data, a processed grey image data, a processed white image data, and a color image data (the non-

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neutral image data) together. (See # 90 of fig. 1) Tai and Eschbach are combinable because they are from the same area of image processing.

Therefore, at the time of invention, it would have been obvious to one of ordinary skill in the art to provide a parser circuit in Eschbach image processing system to parse the object oriented image data into non-neutral image data and neutral image data for the purpose of processing the non-neutral image data and neutral image data independently as suggested by Eschbach.

Moreover, it would have been obvious to process the processed black image data, the processed grey image data, the processed white image data, and the non-neutral image data together as taught by Tai for the purpose of printing a combined image of a non-neutral image and a neutral image. Therefore, it would have been obvious to combine Eschbach and Tai to obtain the invention as specified in claim 4.

5. Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eschbach in view of Tai as applied to claim 5 and in further view of Meir et al.

Regarding claim 5: Eschbach and Tai have disclosed all of the claim limitations as recited in claim 4 except that the neutral color processing circuit processes only the black image data, the grey image data, and the white image data according to a selected feature set.

Meir teaches to process an image according to a selected feature set. (See column 6 line 55-60) Meir, Tai, and Eschbach are combinable because they are from the same area of processing data using a processor.

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At the time of invention, it would have been obvious to one of ordinary skill in the art to modify Eschbach's neutral processing circuit to process only the black image data, the grey image data, and the white image data according to a selected feature set as taught by Meir for the purpose of selecting an image processing operation for an image. Therefore, it would have been obvious to combine Meir, Tai and Eschbach to obtain the invention as specify in claim 5.

6. Claims 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tai in view of Robinson and Eschbach.

Regarding claim 6: Tai teaches a system (see fig. 1 and column 5 line 47-49) for processing object orient image data (see black text object of # 70 of fig. 1) comprising: a rendering transform means (# 80 of fig.1) for transforming a color and color space of a color (see CMY of fig. 1) image and a black image (see K of fig. 1); and an image processing mean (# 90 of fig. 1) for processing the transformed image data together.

Tai does not teach a parsing mean for parsing the object oriented image data into non-neutral image data and neutral image data and a neutral rendering transform means for transforming the color space of only the neutral image data.

Eschbach teaches that an image can be divided into color image data (non neutral image data) and black and white image data (neutral image data) (see column 1 line 19), and that the color image data and black and white image pixel is to be processed independently. (See color separation process for color image of abstract) Robinson teaches the use of different processors to perform different tasks and each processor processes only a specific task. (See column 8

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line 1-25) Robinson, Tai, and Eschbach are combinable because they are from the same area of processing data using a processor.

At the time of invention, it would have been obvious to one of ordinary skill in the art to provide a parser circuit in Tai's image processing system to parse the object oriented image data into non-neutral image data and neutral image data for the purpose of processing the non-neutral image data and neutral image data independently as suggested by Eschbach.

Moreover, it would have been obvious to one of ordinary skill in the art to modify Tai's image processing system by having a neutral rendering transform means for transforming the color space of only the neutral image data for the purpose of having a processor to perform only the specific task of color transforming for the neutral image data as taught by Robinson.

Therefore, it would have been obvious to combine Robinson, Tai and Eschbach to obtain the invention as specify in claim 6.

Regarding claim 7: Tai does not teach a parser circuit to parse a neutral image data into black image data, grey image data, and white image data; and a neutral color processing circuit to process only the black image data, grey image data, and the white image data.

Eschbach teaches a parser circuit to parse a neutral image data (black and white of column 1 line 19) into black image data, grey image data, and white image data; and a neutral color processing circuit to process the black image data, grey image data, and the white image data. (See column 10 line 1-20) Robinson teaches the use of different processors to perform different tasks and each processor processes only a specific task. (See column 8 line 1-25)

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At the time of invention, it would have been obvious to one of ordinary skill in the art modify Tai's image processing system by providing it with a parser circuit to parse a neutral image data into black image data, grey image data, and white image data; and a neutral color processing circuit to process the black image data, grey image data, and the white image data as taught by Eschbach for the purpose of processing different image elements independently.

Moreover, it would have been obvious to one of ordinary skill in the art to modify Eschbach's image processing system by having the neutral color processing circuit processes only the black image data, the grey image data, and the white image data as taught by Robinson for the purpose of increasing processing efficiency. Therefore, it would have been obvious to combine Robinson, Tai and Eschbach to obtain the invention as specify in claim 7.

REMARKS

7. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection. Please see office action.

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Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is (703) 305-0892 or to Supervisor Mr. David Moore whose phone number is (703) 308-7452.

A handwritten signature in black ink, appearing to read "David K. Moore". The signature is fluid and cursive, with the first name "David" being more prominent.

DAVID K. MOORE
SUPERVISORY PATENT EXAMINER
GROUP 2700

April 4, 2000